BULL. BOT. SURV. INDIA
Vol. 30, Nos. 1-4 : pp. 83-89, 1988

ETHNOBOTANICAL STUDIES IN SIMILIPAHAR FORESTS OF MAYURBHANJ DISTRICT (ORISSA)

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ABSTRACT

Similipahar Forests in Mayurbhanj district of Orissa are among the most luxurient and valuable forests of the state. The area is distinctive for its pristine wilderness. Only a small population consisting of a number of aboriginal tribes inhabit the area. A systematic survey of the forests carried out by the authors for over a period of four years has resulted in the finding of a number of tribal uses of the plants. The interesting ones, covering sixty seven species of vascular plants, which are not recorded in the important published literature on the medicinal and other economic plants of the country, are reported in the paper.

INTRODUCTION

Similipahar Forests occupy a group of hills known as Similipahar Hills in the Central part of Mayurbhanj, a northern district of Orissa. The forests extending over an area of 2750 square kilometres are among the most luxurient and valuable forests of the state. The hills rising very precipitously from the plains of Baripada and Udala in the east and south-east, extending as far as Jashipur in the west, Bisai in the north and Thakurmunda in the south west, exhibit an altitudinal range from 300 metres to 1200 metres. With their innumerable crests and valleys clad with rich forests, interspersed with countless streams and at least ten rivers, the hills spread out a wide range of diverse habitats. Their unique geological formation, consisting of three impervious huge quartizite bowls, concentrically placed with their interspaces and the innermost one filled with pervious volcanic rocks, gives immense water retention capacity to the hills and makes it a land of perennial water. All these conditions have favoured the development of a very rich and varied flora. The total number of species comprising the flora of the hills is 990, representing 145 families of vascular plants (Haines, 1921-25; Mooney, 1950; Panigrahi et al. 1964; Saxena and Brahman, 1985).

The forests of Similipahar consist of sal as the predominant species in most areas. The chief forest types met with are, the Northern Tropical Moist Deciduous Forests, the Northern Tropical Semi-evergreen Forests and the Dry Deciduous Hill Forests. Because of its unique ecosystem, Similipahar is in the list of the few International biosphere reserves proposed for the country.

A distinctive feature of Similipahar is its pristine wilderness. The area is inhabited by only a small population consisting of a number of aboriginal tribes. The Chief ones among them are, Santal, Kol, Bhomij, Bhuyan, Bathudi, Kharia, Gond or Gondo, Mankdias, Pauri-Bhuyan, Mahalis, Sounti, and Saharas. Some of these tribes, namely, Kharias, Mankdias and Saharas are still in primitive state of living. They depend solely on their surrounding plants for most of their requirements from food to medicine.

The present study was undertaken in view of the little work done on the ethnobotany of the area in the past (Bal, 1942; Yoganarasimhan and Dutta, 1972; Saxena and

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Date of receipt : 6.1.87, Date of acceptance : 15.1.87

Dutta, 1975; Mudgal and Pal, 1980; Saxena et al., 1981).

Survey tours were conducted in the area during different seasons for over a period of four years and first hand information on the local names and local uses of the plants was gathered from different tribal people met within the area. Help of the local forest staff and other people was taken for interpreting the tribal language. The botanical specimens collected at the time of recording the ethnobotanical notes were given field numbers and preserved in the museum and the herbarium of the laboratory (RRL-B) after proper processing and identification.

A number of tribal uses of plants were recorded during the course of studies. The interesting ones covering sixty seven species of vascular plants, which are not recorded in the important published literature on the medicinal and economic plants of the country are reported here. The abbreviations used in the text are : O.—Oriya, K.—Kol, Sant.—Santal, Bh.—Bhomij and Kh.—Kharia.

ENUMERATION

Acacia torta (Roxb.) Craib, Mimosaceae

Kandan janam (K.)

Paste of young pods is applied to wounds in goats. Chronic sores are cured by applying this paste on alternate days (Chahala-Barheipani, 5456).

Acampe ochracea (Lindl.) Hochr. Orchidaceae

Rasna (Ho)

Leaf-juice is applied to the forehead in the morning to cure headache (Chinguria fall, 5061).

Achyranthes aspera L. Amaranthaceae

Apamarg (O.); Burhidataran (Sant.)

Twigs are used for brushing teeth. Simply tying the plant to the body of the cattle expels maggot from the wounds in their body. (Barheipani, 5191).

Paste of the fruits is applied to the bite of mad dog (Lulung, May 1981).

Adina cordifolia (Roxb.) Hook. ex Brand. Rubiaceae

Koimo (O.); Karam (K.)

Leaves of this plant and that of *Sida cordifolia* L. are made into a paste and applied to cuts and boils (Talbandh, 5419).

Alangium salvifolium (L. f.) Wang, Alangiaceae

Ainso (O.)

Three pieces of root, each about 2 cm long are ground with equal quantity of roots of 'pita lau' [*Lagenaria siceraria* (Molina) Standley] and given twice daily for two days in stomach-ache. Seed-oil is applied to defective limbs in children. Oil is obtained by boiling the seeds with water and collecting the oil from the water surface with the help of a feather (Lulung, 4307).

Alstonia scholaris (L.) R. Brown, Apocynaceae

Chatina (O.)

About 50 gms latex and 10 gms sugar are mixed together and made into 15 doses. It is given thrice daily for four days in spermatorrhoea (Barheipani, February 1983).

Andrographis paniculata (N. Burm.) Wall. ex Nees, Acanthaceae

Bhuineem (O.)

Infusion of the leafy twigs is given in empty stomach in the morning for prevention from malaria and also for stomach troubles (Gurguria, 5282).

Anogeissus latifolia (DC.) Wall. ex Bedd. Combretaceae

Dhaura (O.); Phola, Dhola (Bh.)

Bark-powder is administered twice or thrice daily in doses of about 5 gms for treatment of diarrhoea. (Barheipani, 4480).

Asparagus racemosus Willd. Liliaceae

Gaisiro, Gaichero (O.); Khajri (K.)

Root-powder (10 gms) is given twice a day with milk for the treatment of nocturnal pollution (Satkosia, October 1983).

Root-paste in water is administered (10 gms) two times a day in gonorrhoea (Chahala, 4872).

Baccaurea sapida Muell.-Arg. Euphorbiaceae
Rajkoli (O.)
Unripe fruits are cooked and made into sour sausage. Pulp around seeds of ripe fruits is eaten raw (Badomukkabari, 4583).

Bauhinia purpurea L. Caesalpiniaceae
Kundadi (O.) ; Simidi (Ho.)
Seeds are roasted and eaten by children. Leaves and flowers are cooked and eaten as vegetable. It is believed that consumption of leaves enables one to walk over long distance without much tiring (Barheipani, 5439).

Buchanania lanzan Spreng. Anacardiaceae
Chara (O.) ; Tarap (K.)
Infusion of the bark is administered (10 ml) to cure mouth-sores. (Satkosia, October 1983).
Paste of tender leaves and flower-buds is given as a laxative for the treatment of chronic constipation. (Kundei, 5458).

Canthium dicoccum (Gaertn.) Teys. & Binn. Rubiaceae
Jordaru (K.)
Infusion of powdered bark is given in doses of 30 ml to children suffering from stomach-ache and worms. (Barheipani, 5453).

Chlorophytum arundinaceum Baker, Liliaceae
Bhinka (O.)
Roots are taken as food in fever (Dudurchampa, 5550).

Chrysanthellum indicum DC. Asteraceae
Sonna Rasi (Bh.)
Entire plant (2 gms) is ground along with 2-3 gms 'agnijal' (*Clausenia excavata* N. Burm.) and given in empty stomach twice daily for gastric troubles and stomach-ache (Barheipani, 4483).

Cissus quadrangularis L. Vitaceae, *Vitis quadrangularis* (L.) Wall. ex Wight
Hadasara (O.)
Paste of the stem and banana flowers is applied to the head of the women for ten days or so for preventing conception. (Jamuani-Rajpal, 4896).

Clerodendrum serratum (L.) Moon, Verbenaceae
Samarkand (O.) ; Saramlutum (K.)
Root-paste (5 gms) is given twice daily in diarrhoea (Badomukkabari, 4770).

Cochlospermum religiosum (L.) Alston, Cochlospermaceae
Kapasia, Pithalu (O.) ; Opubaha (K.)
Root (3-5 cm long and 0.5 cm thick) is chewed in pale and painful urination (Chahala, 5460).
Bark is crushed with water and the juice so obtained is mixed with the paste of 'pitha' (a type of fried preparation of rice-powder). This will allow it to swell more and make it crispy. (Sirsaban check gate, 514).

Croton caudatus Geisel, Euphorbiaceae
Furudi (O.)
Leaf-paste (5 gms) is given in fever (Jenabil, 4799).

Croton roxburghii Balak. Euphorbiaceae, *C. oblongifolius* Roxb. non Delile
Masund (O.)
Paste of root-bark is heated and applied to boils for either subsiding or hastening suppuration (Similipahar, 453).

Cynodon dactylon (L.) Pers. Poaceae
Dhubo (O., K.)
Leaves are crushed and the juice (2-3 drops) is poured in the nose to check nose-bleeding. This is repeated 3-4 times at half-an-hour intervals. Leaf-juice is taken daily with honey to improve general debility (Thakurmunda, October 1983).

Dendrophthoe falcata (L.f.) Etting, Loranthaceae
Malang (O.), Sem (K.)
Leaf-juice is applied to the wounds (Solandi, 5459).

Elephantopus scaber L. Asteraceae
Tutamuli (O.), Badojhato (Bh.), Chaulichapi (K.)
Root-paste is applied to the forehead to relieve headache (Similipahar, 4482).

Entada rheedii Spreng. Mimosaceae, *E. pursaetha* DC., *E. scandens* auct. non Benth.
Katako, Borogilo (O.)
Powdered bark paste is used to plug small gaps in boats (Chahala, August 1979).

Erycibe paniculata Roxb. Convolvulaceae
Jodakoli (O.); Kari (K.)
Bark (5 cm long and 1 cm broad piece) is chewed twice daily for two days to cure fever (Talbandh, 5427).

Ficus racemosa L. Moraceae, *F. glomerata* Roxb.
Lowa (K.)
Latex is spread over a sal leaf and applied to mumps (Koirukacha, 5463).

Flacourtia indica (N. Burm.) Merr. Flacourtiaceae
Baicha (O.), Merle (K.)
Infusion of crushed fruits is taken (150 ml) in the morning for three days in painful urination (Talbandh, 5416).

Glochidion lanceolatum Dalz. Euphorbiaceae
Pitari (K.)
Seeds (2-3 for children and 6-8 for adults) are ground and given in nausea (Koirukacha, 5462).

Gnetum ula Brongn, Gnetaceae
Jangli Badam (Kh.)
Seeds, which are hard, are broken and the cotyledons are eaten after frying. The Kols name the fruit as 'lonja jang' (Chahala, 5301).

Helicteres isora L. Sterculiaceae
Antomulo (O.)
Fruits and raw turmeric are added in mustard oil and kept for a few days. This oil is applied to the defective limbs of the children (Meghasani, 4431).

Homalium nepalense (Wall.) Benth. Flacourtiaceae
Dhanimari, Kakhara, Kakhda (O.)
Powedered bark (5 gms) is given in stomach-ache (Dudurchampa, 4401).

Hoya wightii J. Hook. Asclepiadaceae, *H. pendula* sensu auct. excl. basionym; Wight & Arn.
Leaf-paste and crushed garlic are boiled in mustard oil (200 ml). This oil is applied to skin diseases (Similipahar, February 1983).

Indigofera cassioides Rottl. ex DC. Fabaceae
Gileri, Jheli (O.)
Flowers are cooked and eaten as a vegetable. Infusion of the roots of this plant and that of 'khuredo' [*Randia uliginosa* (Retz.) DC.] and 'Gurud' (*Ixora parviflora* Vahl) is given for pneumonia in children (Satkosia, October 1983).

Ipomoea turbinata Lag. Convolvulaceae, *Calonyction muricatum* (L.) G. Don
Bina (O.); Parkamkuthe (Majhi).
Seed-paste is applied to head as a shampoo for cleaning the hairs and removing lice. It is sometimes used to clean utensils also. (Dongadiha, 5318).

Jatropha curcas L. Euphorbiaceae
Bamprijada (O.); Totka joda (K.)
Seed-oil is used for edible purpose (Thakurmunda, October 1983).

Madhuca longifolia (Koenig) Macbride var. **latifolia** (Roxb.) Chev. Sapotaceae
Muhulo (O.) Matkam (K.)
Flowers (corolla) are boiled in water with a pinch of salt for half-an-hour; 5-10 ml of this decoction is given with honey, thrice a day for seven days in piles and fistula (Talbandha, 5422).

Memecylon umbellatum N. Burm. Melastomataceae, *M. edule* Roxb.
Niresho (O.)
Fruits are eaten raw to improve digestion (Satkosia, 5524).

Millettia auriculata Baker ex Brand. Fabaceae

Guadhubni, Guadhuṇi (O.); Halegaccho (Bh.); Hel (K.)

Root-paste is applied to cure skin diseases. It is also applied to the body of the animals to kill ticks (Barheipani, 4478).

Mucuna nigricans (Lour.) Steud. Fabaceae

M. imbricata DC.

Boidonka (O.); Itika (K.)

Paste of the seeds is applied to the ulcers of the genital organs of both sexes. Meat preparations are restricted in the diet during the period of treatment (Koirukacha, 5467).

Mukia maderaspatana (L.) Roem. Cucurbitaceae

Pahari Kakharu (K.)

Leaves are cooked and eaten like a vegetable. (Thakurmunda, 5335).

Nyctanthes arbortristis L. Nyctaginaceae

Gangaseoli, Ganthakhelika (O.); Charisira (Bh.)

Three leaves each of this plant and those of 'tulsi' (*Ocimum sanctum* L.) and 'nimbo' (*Azadirachata indica* A. Juss.) are made into paste with water and given twice daily for two days in fever (Lulung, May 1981).

Paste of shoot-tips along with 21 black peppers is given thrice for one day only to cure malaria fever (Joranda, 4855).

Ocimum americanum L. Lamiaceae

Ban tulsi (O.)

Fumigation by keeping fresh plants over fire in a closed room for half an hour kills ticks in the body of chicken (Jamuani, 4537).

Oroxylum indicum (L.) Kurz, Bignoniaceae

Phimphinia, Bhalukshakti (O.); Ringevenam (K.)

Seed-paste is applied to the mumps (Thakurmunda, October 1983).

Paste of seeds (three numbers) is given to children twice a day for stomach-ache (Lulung, 4306).

Ougeinia oojeinensis (Roxb.) Hochr. Fabaceae

O. dalbergioides Benth.

Bandhan (O.).

Bark-paste is applied to rheumatic limb (Satkosia, October 1983).

Oxalis corniculata L. Oxalidaceae

Suti, Mamri (O.)

Roots are made into paste along with garlic and given 1 teaspoonful twice a day for cold (Similipahar, August 1979).

Pergularia daemia (Forsk.) Chiov. Asclepiadaceae

Utrali (O.)

Flowers (4-5 in number) are fried in 'ghee' (25 gms) and given twice a day after food for whooping cough (Thakurmunda, 5380).

Peucedanum nagpurense Prain, Apiaceae

Pehardang (Ho.)

Root-paste (3 gms) is administered orally in gonorrhoea (Bhanjabasa—Upper Barakamada, 4108).

Piper trioicum Roxb. Piperaceae, *P. attenuatum* Buch.-Ham. ex Miq. (1843) non-Herb. ex Link (1820)

Chanyeekatho (O.)

For eye troubles, especially when they turn reddish a fresh stem piece of this plant is taken and dipped in water and a drop of water is poured in each eye. A decoction of stem is given in asthma (Meghasani, 4422).

The nodal portion of stem (2.5 cm long) is made into paste with black peppers and garlic, heated and given thrice a day for two days only for cold, tonsilitis and throat infection (Bhanjabasa, 4248).

Protium serratum (Wall. ex Colebr.) Engl. Burseraceae

Rimuli (O.); Kandiore (K.)

Fruits are acidic and eaten raw. Bark (5 gms) and root (3 cm long) are made into paste with water and given thrice daily for a week to cure cracking of lips and mouth ulcers (Chahala, 5426).

Pterocarpus marsupium Roxb. Fabaceae

Bija, Piasal (O.)

Juice of bark (10 gms) is given two to three times for cure of mouth sores (Barheipani, 4485).

Pterospermum xylocarpum (Gaertn.) Sant. & Wagh, Sterculiaceae, *P. heyneanum* Wall. ex Wight & Arn.
Gadigamcha (K.); Mucchkando (O., K.)
Bark-powder (50 gms) is mixed with water along with some honey or sugar-candy and left overnight. Next morning it is filtered and given (150 ml) for veneral diseases for 20 days. Bark-powder (10 gms) with honey is also prescribed for general debility (Talbandha, 5425).

Rubia cordifolia L. Rubiaceae
Rango chiretto (O.)
Root alongwith that of *Cissampelos pareira* L. is used in the preparation of wine to give it more intoxicating effect (Meghasani, 5087).

Schleichera oleosa (Lour.) Oken, Sapindaceae
Bara (K.)
Seed-paste is heated and applied warm to the cuts. White patches on the skin are cured by applying seed-paste. (Rajpal, 5482).

Shuteria vestita Wight & Arn. Fabaceae
Jilli phulo (O.), Vutar-dara (K.)
Leaves and flowers are cooked and eaten as vegetable (Satkosia, 5476).

Solanum torvum Sw. Solanaceae
Kantua (O.)
Fruits are fried in oil and given in cough. Dudurchampa, (4638).

Spondias pinnata (L.) Kurz, Anacardiaceae
Amra, Salma (O.)
Unripe fruits (3-4) are roasted, peeled and the pulp is made into three pills. One pill is given three times a day for two days for blood dysentery (Burhabalang, 5113).

Stachytarpheta indica (L.) Vahl, Verbenaceae
Jhato (Bh.)
Root-powder is applied to the deep and old wounds (Barheipani, 4481).

Stereospermum chelonoides (L.f.) A.P.DC. Bignoniaceae, *S. suaveolens* A.DC.
Parudi (O.); Tangob (K.)
Bark is made into paste along with equal quantity of the rhizome of 'gada' (*Zingiber zerumbet* Sm.). In scorpion-bite 20 gms of this paste is given orally, few drops filtered through a cloth are poured in the ear and the nose and the residue is applied locally to the bite (Chahala, 5444).

Strobilanthes sp. Acanthaceae
Painya (O.)
Flowers are favourite of honey-bees. Honey production is said to increase considerably in the flowering years of this plant at intervals of 5-6 years (Similipahar, October 1983).

Syzygium cumini (L.) Skeels, Myrtaceae
Jamur (O.); Kuda (K.)
In case a child has eaten hairs by accident, the ripe fruits of this plant are given to him to eat in good quantity. This will help in the cleaning of the bowels and expelling out the hairs (Barheipani, 5457).

Vanda tessellata (Roxb.) Hook. ex G. Don Orchidaceae
Kankata, Amdahaka, Bani (O.); Gaccho Janaya (K.)
Leaf-juice is heated and poured warm in the ears to check ear-ache (Thakurmunda, October 1983).
Leaf-paste is used as a lactagogue (Lulung-Dudurchampa, 4303).

Vanda testacea (Lindl.) Reichb. f. Orchidaceae
Malang (O.)
Leaf paste of the plant growing on 'muhulo' *Madhuca longifolia* (Koenig) Macbride var. *latifolia* (Roxb.) Chev. is applied to cuts (Rajpal, 4900).

Viscum orientale Willd. Loranthaceae
Katkom (K.)
Fruits of this epiphytic plant and equal quantity of the fruits of the host plant [*Madhuca longifolia* (Koenig) Macbride var. *latifolia* (Roxb.) Chev.] are ground together and small pills of 1 cm diameter are made. One pill is given daily in the morning for seven days in cases of giddiness and also in stiff neck (Talbandha, 5424).

Vitex peduncularis Wall. ex Schauer, Verbenaceae

Chadeigudi, Simkata (O.)

A decoction of the fresh bark is taken as tea. (Similipahar, October 1983).

Woodfordia fruticosa (L.) Kurz, Lythraceae

Icha (K.)

Paste of the flowers (5 gms) and 'champa' (*Michelia champaca* L.) bark (10 gms) is given twice a day for seven days to treat excess bleeding during menstruation. (Korukacha-Talbandh, 5432).

Ziziphus rugosa Lam. Rhamnaceae

Tinkoli (O.)

The dislocated joints are set right in one weeks time by applying hot root-paste and giving some support with the help of sticks. (Similipahar, February 1983).

Ziziphus xylopyrus (Retz.) Willd. Rhamnaceae

Gonti, Goto (O.)

Leaf-juice (5 ml) is given orally and also applied locally in snake-bite (Barheipani, 4493).

ACKNOWLEDGEMENTS

The authors are thankful to the Similipahar Forest Development Corporation, Baripada, the sponsor of the Project for their cooperation during survey tours. Thanks are due to Prof. P. K. Jena, Director, Regional Research Laboratory, Bhubaneswar for providing necessary facilities.

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